



KML Map HD

Create, Edit, Display, and Store Maps on the iPad

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Keyhole markup language (KML) is a standard format used by Google Earth and other mapping and navigation tools to represent geographical information. KML Map HD lets you create, edit, display, and store KML map data and attached media content (often called metadata) on the iPad. Use KML Map HD to view photographs on maps from the location and direction they were taken, to create your own custom maps containing point, line, and polygonal data, to display topographic maps and ground overlays on top of Google Map layers, to visualize scientific data and metadata for a variety of applications, and much more.

Here are some of the features of KML Map HD:

- Display KML point, line, and polygonal features, ground and photo overlays.
- Standard north up or rotating map that points in your look direction.
- Portrait or landscape mode.
- Display KML content from Safari or embedded in email. Just click and see the data in KML Map HD.
- Add new map features. Edit lines and polygons. Change color, transparency, line width, description.
- Assign address information to new objects using reverse geocoding.
- Elevation data is downloaded from global terrain data server (not GPS) for consistency.
- Display ground overlays (e.g., your own maps and images) over base maps/images
- Photo overlays are rendered on a map from the location and direction they were taken.
- Supports multiple, variable-transparency map layers
- Merge KML files
- Read compressed KMZ files
- Transfer files between KML Map and your computer using iTunes File Sharing
- Download KML and KMZ content from network URLs
- Supports standard and custom pushpins/placemark icons
- Shows/hides names on map
- Quickly find an object of interest in the current map layer by name
- Display full HTML content contained in CDATA tag (text, pictures, sound files, or movies)

Important Notice: KML Map understands a subset of the KML language, specifically points, line strings, and polygons (without holes). It can display ground overlays (LatLonBox format only) and photo overlays. HTML contained within CDATA tags (including pictures, sound files, and video) are rendered in a web view window. Files containing unsupported tags will not load. File sizes should be limited to 5-7 Mbytes. If the file is too large KML Map will quit. The size of files that can be emailed is limited by the operating system. KML Map HD also reads compressed KML or KMZ files. However, depending on the internal structure and contents of the file, KML Map HD may only be able to display one KMZ file at a time.

Top Tool Bar

SEARCH BAR – The search bar can be used for finding cities and towns. The built-in gazetteer contains 86,000 place names from all over the world. Just type a city (e.g., ‘Genève’ for Geneva, Switzerland). You can also type a latitude and longitude (in decimal degrees with a comma in between) to go to that location.

LOAD – Loads a KML file (either .kml or .kmz) stored on your iPad in the documents directory into the current map layer.

SAVE – Saves the contents of the current map layer in three ways. First, the data are saved to a file “YYYYMMDD_hhmmss.kml” automatically generated from the current date/time. Second, a copy is saved in the file specified in the “New File Name” field in the add/edit menu. Third, the KML data are copied into the pasteboard. This last way allows the data to be emailed.

DELETE – Deletes a KML file from the documents directory.

ADD – Adds a new point, line, or polygonal placemark to the current map layer). Tapping ADD reveals a secondary menu, which is described below.

REMOVE – Removes an object in the current map layer by selecting the object by name from a list of objects in the layer.

EDIT – Edits an existing point, line, or polygonal object. Tapping EDIT reveals a secondary menu, which is described below.

FIND – Lists all objects in the current map layer. Selecting an object updates the display so the object is in the center of the screen. This can also be used to select an object for editing.

As stated above, tapping either ADD or EDIT reveals a secondary menu. To add an object tap either POINT, LINE, or POLYGON. Touch the screen to place and move the point. To add a point placemark tap the map once. Drag the placemark to the desired position. Tap two or more times to create lines, and three or more times to create polygons, depending on the type of feature you are adding.

If parts of the line or polygon you wish to add are outside the area shown on the map, tap SELECT/ROAM to switch back to ROAM to move the map. Tap ROAM to toggle back to continue. If you make a mistake, touch DELETE to remove the last placemark, or point along a line or vertex of a polygon.

New point placemarks are drawn as a simple pin. The intensity, hue, and saturation sliders change the color of pins, lines and polygons. The other sliders control transparency, and line width. Polygons are rendered simply as a filled in region (KML Map HD does not draw holes using the innerBoundaryIs tag). If you are editing an object, the top buttons are disabled. Tap “Done” to exit.

If you want to save to a specific file name you can specify the name in the yellow top left text view. Although features are assigned a unique name they can be given a specific name in the middle left text view. The lower left text view allows you to add descriptive text to the object.

To edit an object you must first select it. This can be done in two ways: either by touching the object in SELECT mode, or by selecting the object in the list presented by tapping FIND on the top tool bar.

There are five additional buttons at the bottom of the secondary menu:

DELETE removes the current point in a line or polygonal object

REVERSE changes the direction (order) of the points in the line or polygon

NEXT POINT moves to the next point in the feature

UNDO reverts to the original object

DUPLICATE makes a copy of the current object

Deleting all points in an object causes the object to be erased after tapping “Done”. This cannot be undone.

Bottom Tool Bar

LAYER 1, 2, 3, 4 – Selects one of four map layers. The selected layer is also known as the current map layer.

SHOW/HIDE – Use to turn on/off display of map layers. Tap APP SETTINGS to change transparency.

MAP, SATELLITE, HYBRID – Changes the Google base map/image.

META – Reveal a window containing the selected object’s metadata. Specifically this is either plain text or HTML contained within a CDATA section in the description tag of the KML object.

ROAM, SELECT – ROAM allows you to scroll and zoom the map. Tap SELECT to select an object for editing.

NORTH/ROTATE – Toggles between either displaying the map so that up is north, or continuously rotating the map to point in the direction you are holding the iPad.

GPS/ OFF – GPS re-centers the map view each time there is a GPS update.

APP SETTINGS – Exposes a secondary menu with the following controls:

DISPLAY NAMES – “On” displays the name of the object (points, lines, and polygons) on the map.

IMAGE ICONS – “On” uses pins or placemark icons from the designated URL, which can either be at a network URL or be stored locally in the app’s documents directory along with the KML file. “Off” renders placemarks using a simple colored pin (loads faster).

CLEAR THEN LOAD – “On” clears the previous contents of a map layer when a new KML file is loaded. “Off” adds to the data that was previously there. This can be used to combine KML files.

LINK UPDATE – “On” loads the data specified in the yellow “Network Link URL” text window into the current map data. The data are loaded once approximately 5 seconds after tapping “Done”.

NETWORK LINK URL – Specifies KML data that you wish to load from the network. (N.B. Network data are always loaded into Layer 4.) KML Map HD supports basic HTTP authentication; i.e.,

<http://userID:password@website/filename.kml>.

The password is not hidden and neither the userID nor the password are encrypted.

CROSSHAIRS – “On” displays blue crosshairs at the current GPS location. Gray crosshairs are always displayed on some portion of the currently selected object.

LAYER TRANSPARENCY – Changes the transparency of all KML objects (points, lines, polygons, and ground overlays) in the current map layer.

Transferring Files

KML files can be transferred to/from the iPad in several ways. The easiest way is to move files between the KML Map HD documents directory and your computer using iTunes File Sharing. To do this connect your iPad up to a computer and open iTunes. Select your device and tap its “Apps” tab. File Sharing appears at the bottom (you might have to scroll down to see it). Select KML Map HD to see the contents of the documents directory on the right.

To load a file from an email, hold your finger down on the attachment until a window pops up that asks you to specify how you wish to open the file. KML files can be loaded from web pages using Safari in a similar manner. To email KML data, save the file, close KML Map HD, open email, and paste the contents of the pasteboard into the body of the email. Data can also be download from a network URL as mentioned in the previous section.